

REMARKS

Claims 1-19 are pending in the application. Claims 7-19 have been added. No new matter has been added.

It is noted that the claims amendments are made only for pointing out the claimed invention more particularly, and not for distinguishing the invention over the prior art, narrowing the claims, or for statutory requirements for patentability. Further Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges the Examiner's indication that claims 2-6 would be allowable if rewritten in independent form. Applicant submits, however, that all pending claims are allowable.

Claim 1 stands rejected under 35 U.S.C. §103(a) over Suda et al. (U.S. Patent Publication No. 2002/00151300) (hereinafter Suda) in view of Yano et al. (U.S. Patent Publication 2003/00122179) (hereinafter Yano).

Applicant respectfully traverses these rejections in the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention, as recited in independent claim 1, is directed to a method of limiting communication access between wireless LAN terminals of a wireless LAN, including the steps of allocating different subnetwork addresses to **respective wireless LAN terminals**, setting default gateways of the respective wireless LAN terminals as a single access limiter, and returning a communication packet between the wireless LAN terminals **from said access limiter** which is set as said default gateways, for providing an

access limiting function to limit communication access between the wireless LAN terminals.

The conventional wireless LAN, however, does not limit communication between wireless terminals inside the LAN. As a result, communication between wireless terminals can consume all of the LAN's resources. For example, an FTP transfer between terminals in the wireless network can lead to 100 percent of the wireless LAN transferring the files between the terminals, leading to a loss of function during that transfer.

The claimed invention provides, however, "an access limiting function to limit communication access between the wireless LAN terminals." That is, within a wireless LAN, access between terminals is controlled. This is feature is important for preventing two wireless terminals from consuming all the resources of a wireless LAN (See the Application, page 4, lines 17-26).

II. THE ALLEGED PRIOR ART REFERENCE

On page 2 of the Office Action, the Examiner alleges that Suda when modified by Yano teaches the claimed invention described by independent claim 1.

To establish a *prima facie* case of obviousness, several basic criteria must be met. For example, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j). In addition, as stated in *KSR*, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (*In re Kahn*, 441

F.3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int'l. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007)).

First, both references, either alone or combined, fail to teach or suggest every element as recited in claim 1. While the Examiner alleges that Suda, at FIG. 1 discloses a method of limiting communication access between wireless LAN terminals of a wireless LAN, FIG. 1 is directed to a wireless communication system for setting up different access points that a wireless terminal may access. Thus, when “the user goes out of the home, the user can carry out communications by using the access point 2.” Thus, a user terminal can access control station 3 via personal access point 1 and then public access point 2.

Furthermore, referring to FIG. 11, wherein Suda discloses authentication processing unit 13, Suda only considers the interaction of terminal 101 with access point 1 or 2 and that relationship with control station 3 or 3'. That is, Suda does not disclose or suggest a “method of limiting communication access between wireless LAN terminals of a wireless LAN,” as recited in independent claim 1.

Thus, while Suda fails to teach or suggest a “method of limiting communication access between wireless LAN terminals of a wireless LAN,” including “providing an access limiting function to limit communication access between the wireless LAN terminals,” as recited in claim 1, the Examiner also admits that Suda does not disclose allocating different subnetwork addresses to respective wireless LAN terminals.

In order to make up for this admitted deficiency, the Examiner alleges that Yano discloses allocating different subnetwork addresses to respective wireless LAN terminals. However, contrary to the Examiner’s allegation, Yano does not teach or suggest “allocating different subnetwork addresses to respective wireless LAN terminals,” as recited in claim 1.

Rather, Applicants submit that at paragraph 4, Yano discloses a subnetwork having a unique IP address group assigned to that subnetwork. That is, the unique address is assigned to the subnetwork and not to individual wireless LAN terminals. As Yano states, "each of mobile terminals connected to a subnetwork is provided with an IP address included in the unique IP address group assigned to the subnetwork." And as a result, when the terminal is moved to a different subnetwork, "the mobile terminal needs to be assigned a different IP address." That is, the subnetwork has a unique address, and not the terminal.

Furthermore, since an ordinary wireless LAN access point does not have a band control at every terminal, a data flow of "terminal 1 \longleftrightarrow access point \longleftrightarrow terminal 2," has a possibility of consuming all the bands. The present invention solves the above problem by arranging some external add-on special device without having to modify an existing access point.

Thus, the present invention prevents a direct communication at the IP level by different subnets which are allocated to wireless terminal 1 and wireless terminal 2 in order not to consume all the bands by a data flow of "wireless terminal 1 \longleftrightarrow access point \longleftrightarrow wireless terminal 2. The communication through the IP router is necessary when the communication between terminal 1 and terminal 2 is needed, since the direct connection between terminal 1 and terminal 2 cannot be done. Thus, a special device (e.g., an access limiter) is arranged connected to a wireless terminal of the access point, and the access limiter limits or monitors the communication between the wireless terminals and has an IP routing function. For example, independent claim 1 recites, among other things, "providing an access limiting function to limit communication access between the wireless LAN terminals."

Nonetheless, since the wireless terminal needs to be instructed of an address of the IP

router, setting of the IP addresses can be DHCP.

In sum, neither Yano nor Suda, either alone or in combination, teaches or suggests every element as recited in claim 1.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

III. NEW CLAIMS

Applicant has added new claims 7-19 to claim additional features of the invention and to provide varied protection for the claimed invention because these claims are independently patentable because of the novel features recited therein.

New claim 9 recites, *inter alia*, a wireless LAN system, including a wireless LAN access point configured to wirelessly associate with a plurality of wireless terminals and an access limiter configured to control communications between a first of the plurality of the wireless terminals and a second of the plurality of the wireless terminals, the first wireless terminal and the second wireless terminal communicating through the access limiter.

Applicant respectfully submits that new dependent claims 7 and 10-16 presents no new matter and are supported in the specification.

New claim 17 recites, *inter alia*, a wireless network router, including a wireless access point and an access limiter comprising a plurality of LAN interfaces associated to the wireless access point, the access limiter having an access limiting apparatus to pass or drop a received packet to thereby inhibit or permit communications between a plurality of wireless terminals; and a routing apparatus for distributing packets selectively between the wireless LAN access point depending on a destination of the packets between the plurality of wireless terminals,

and communication between any of the plurality of wireless terminals is routed through the access limiter. Applicant respectfully submits that new claim 17, and dependent claims 18 and 19, presents no new matter and are supported in the specification.

Applicant submits that new claims 7-19 are patentable over the cited references at least for analogous reasons to those set forth above with respect to claims 1-6.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-19, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

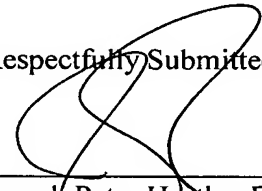
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: _____

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